



LRFD

Section 1.0

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This Bridge Manual, published by the State Bridge Office, is provided to assist MoDOT's internal staff and outside consultants in performing design work for the department. It is intended to disseminate information regarding practices and policies to be applied to the design of Missouri structures on the state maintained system.

It is the users responsibility to verify the design information presented is applicable to their particular project or situation.

These guidelines are for all projects involving LRFD design, they are not intended to limit the designer or consultant from applying innovations which will lead to a more cost effective and technically sound solution as appropriate for the situation at hand. The evaluation of alternate solutions include such innovations is both expected and encouraged. However, any variations to the Manual or Standard Plan Sheets should be discussed in advance with the appropriate Structural Liaison Engineer or Structural Project Manager.

It should be noted that the Federal Highway Administration has mandated:

1. All new bridges on which States initiate preliminary engineering after October 1, 2007, shall be designed by the LRFD Specifications.
2. All new culverts, retaining walls, and other standard structures on which States initiate preliminary engineering after October 1, 2010, shall be designed by LRFD Specifications, with the assumption that the specifications and software for these structures are "mature" at this time.
3. For modifications to existing structures, States would have the option of using LRFD Specifications or the specifications which were used for the original design.

MoDOT has an internal goal to transition to LRFD as soon as possible. In developing this manual, some items are in modified form from the AASHTO specifications to avoid designing less of a physical structure than what we are currently providing in LFD because in addition to design considerations, maintenance considerations and associated costs are also a primary consideration. As more experience is gained with the LRFD Code; in some cases the necessity of modifications may be re-evaluated over time.

AASHTO committees are constantly in a state of research and review and as simplification to the LRFD process is determined by AASHTO, those refinements will be evaluated for appropriateness to include in this Manual as available time and resources permit.

The following notation is used throughout these Guidelines:

"LRFD DG Sec. XXX" refers to this set of MoDOT LRFD Bridge Design Guidelines

"LRFD XXX" refers to AASHTO LRFD Bridge Design Specifications.

"BM" or "Bridge Manual" refers to MoDOT LFD Bridge Manual

"Sec" refers to Missouri Standard Specifications for Highway Construction